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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/799,061	03/12/2004	Eitan Cadouri	524322001200	6747

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EXAMINER	
HOLLINGTON, JERMELE M	
ART UNIT	**PAPER NUMBER**
2829	

DATE MAILED: 07/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/799,061	CADOURI, EITAN	
	Examiner	Art Unit	
	Jermele M. Hollington	2829	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12 March 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-16* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-16* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claim 1 is objected to because of the following informalities: in line 3 of the claim, the limitation "a die placement" should be change to --said die placement-- in order to avoid a duplicant positive recitation for the limitation in the claim. Appropriate correction is required.

2. Claim 2 is objected to because of the following informalities: in line 1 of the claim, the limitation "a die placement" should be change to --said die placement-- in order to avoid a duplicant positive recitation for the limitation in the claim. Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-16 are rejected under 35 U.S.C. 102(e) as being anticipated by Johnson et al (6640423).

Regarding claim 1, Johnson et al disclose a method of selecting a die placement of dies (dies 26) on a wafer (substrate 48) to reduce test time of the dies, the method comprising: a) obtaining [via computers 55 and 66] a die placement (die holder 100) of dies (26) on the wafer (48), b) determining placements [via computers 55 and 66 and positioning device 24] of a tester head (probe 604) needed to test the dies (26) in the die placement (100); c) determining [via computers 55 and 66] a number of touchdowns needed in the determined placements of the tester

head (604), wherein a touchdown involves lowering the tester head (604) to form an electrical contact between pins on the tester head (604) and bonding pads [not number but shown] on a die (26) being tested; and d) adjusting the die placement (100) [via position device 24 and control device 22] to reduce the number of touchdowns.

Regarding claim 2, Johnson et al disclose wherein steps b) to d) are iterated to obtain a die placement (100) with a minimum number of touchdowns needed to test the dies (26) in the die placement.

Regarding claim 3, Johnson et al disclose the placements of the tester head (604) are determined based on a test program [via computers 55 and 66].

Regarding claim 4, Johnson et al disclose wherein steps a) to d) are iterated for different test programs [via computers 55 and 66] to determine a combination of die placement and test program with a minimum number of touchdowns.

Regarding claim 5, Johnson et al disclose wherein steps a) to d) are iterated for different tester heads (604) to determine a combination of die placement (100), test program, and tester head with a minimum number of touchdowns.

Regarding claim 6, Johnson et al disclose steps a) to d) are iterated for different tester heads to determine a combination of die placement (100) and tester head (604) with a minimum number of touchdowns.

Regarding claim 7, Johnson et al disclose the tester head (604) is configured to simultaneously test a set of multiples dies (26).

Regarding claim 8, Johnson et al disclose a method of selecting a die placement of dies (dies 26) on a wafer (substrate 48) to reduce test time of the dies, the method comprising: a)

obtaining [via computers 55 and 66] a die placement (die holder 100) of dies (26) on the wafer (48), b) obtaining [via computers 55 and 66] a configuration of a tester head (probe 604) used to test the dies (26) on the wafer (48); c) determining placements [via computers 55 and 66 and positioning device 24] of a tester head (probe 604) needed to test the dies (26) in the die placement (100); d) determining [via computers 55 and 66] a number of touchdowns needed in the determined placements of the tester head (604), and e) adjusting the die placement (100) [via position device 24 and control device 22] to reduce the number of touchdowns.

Regarding claim 9, Johnson et al disclose wherein steps b) to d) are iterated to obtain a die placement (100) with a minimum number of touchdowns needed to test the dies (26) in the die placement.

Regarding claim 10, Johnson et al disclose the placements of the tester head (604) are determined based on a test program [via computers 55 and 66].

Regarding claim 11, Johnson et al disclose wherein steps a) to d) are iterated for different test programs [via computers 55 and 66] to determine a combination of die placement and test program with a minimum number of touchdowns.

Regarding claim 12, Johnson et al disclose wherein steps a) to d) are iterated for different tester heads (604) to determine a combination of die placement (100), test program, and tester head with a minimum number of touchdowns.

Regarding claim 13, Johnson et al disclose steps a) to d) are iterated for different tester heads to determine a combination of die placement (100) and tester head (604) with a minimum number of touchdowns.

Regarding claim 14, Johnson et al disclose a system (system 10) of selecting a die placement (die holders 100) of dies (dies 26) on a wafer (substrate 48) to reduce test time of the dies, the system (10) comprising: an initial die placement (100) of dies (26) on the wafer (48) [via positioning device 24], a tester head (probe 604) having pins to contact bonding pads on a die (26) on the wafer (48) being tested; and an adjusted die placement (die holders 76), wherein the adjusted die placement (76) is derived from the initial die placement (100) by determining placements of the tester head (604) needed to test the dies (26) on the initial die placement (100) and a number of touchdowns needed in the determined placements of the tester head (604), and wherein the adjusted die placement (76) requires fewer touchdowns by the tester head (604) to test the dies (26) on the adjusted die placement than the dies (26) on the initial die placement (100).

Regarding claim 15, Johnson et al disclose the initial die placement (100) and the adjusted die placement (76) have the same number of dies.

Regarding claim 16, Johnson et al disclose the tester head (604) is configured to simultaneously test a set of multiples dies (26).

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Anderson (5654204), Farnworth et al (6555400 & 6841796), Pindo (6703170), Kirloskar et al (6777971), and Cadouri (6826738) disclose a method and apparatus for die sorting within the wafer.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jermele M. Hollington whose telephone number is (571) 272-1960. The examiner can normally be reached on M-F (9:00-4:30 EST) First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nestor Ramirez can be reached on (517) 272-2034. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jermele M. Hollington
Primary Examiner
Art Unit 2829

JMH
July 25, 2005